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1 9 APR 1974

MEMORANDUM FOR:

Director, CIA Reconnaissance Programs

SUBJECT:

Program Progress Report

Forwarded herewith are three copies of the IDEALIST Program Progress Report for the period 1 January 1974 -31 March 1974.

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WENDELLYE. BEVAN, JR. Brigadier General, V\$AF Director of Special Activities

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Attachments -As stated

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SAS/O/OSA: (10 April 1974)

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	Section 1	25X1
	IDEALIST	
į	OPERATIONAL SUMMARY AND STATUS	
•	(1 January 1974 - 31 March 1974)	
25X1	I. OPERATIONAL MISSION SUMMARY	
	A. Ten IDEALIST TACKLE missions were alerted during this period.	25X1
25X1 25X1	All missions were planned to be flown no closer than 25 nautical miles to the China mainland coast. The following is a summary of the missions flown:	
25X1	1. Mission C024C was flown in the Taiwan Strait on  The mission employed the "H" camera system.  All aircraft systems operated normally and there were no known threats to the aircraft. programmed targets and 16 bonus targets were covered on this mission.	25X1
25X1	2. Mission C044C was flown in the Taiwan Strait on  The "H" camera system was employed on this mission. All aircraft systems operated normally and no	
25X1	threat emitters were directed against the mission aircraft.  programmed targets and 15 bonus targets were covered during this mission.	
	B. One mission was flown to obtain standoff photography of coastal North Vietnam with the "H" camera system. This mission was planned to approach no closer than 12 nautical miles from the North Vietnam mainland or 4 nautical miles from selected offshore islands. The following is a summary of this mission:	25X1

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	1. Mission S014E was flown  The mission was primarily designed to achieve coverage of the Haiphong Harbor area and provided the best peripheral imagery to date of coastal North Vietnam. The mission provided complete coverage of shipping in the Haiphong Harbor area, new and updated information	25X1
	on SAM defenses, naval order of battle, and a new naval acquisition (Suction Dredge) in North Vietnam. The mission was flown as briefed, although a flameout occurred during the descent phase prior to recovery. An engine restart was accomplished, and a normal landing followed.	25X1 25X1
25X1	II. GENERAL	,
25X1 25X1	A	25X1
25X1	weather or equipment malfunction. A total of 135 hours were flown in support of	
25X1	B. COMPASS TRIP - Three sorties were flown over the poppy field test site at Yuma, Arizona.	
25X1	C. "B-3" Camera Test - Nine sorties were flown in support of the modified "B" configuration.	
25X1	D. "H" Camera Test - Three sorties were flown for operational testing of the "H" camera.	
25X1	E. Two acceptance tests were flown on the modified DELTA camera.	

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25X1	F. IRIS Mission - One sortie was flown for SPS with the IRIS camera.	25X1
25X1	With the 11tb camera.	
		25X1
25X1	III. PILOT AND AIRCRAFT STATUS (AS OF 31 MARCH 1974)	
	A. Detachment "G" (Edwards AFB - North Base)	
	Aircraft 2 U-2R	
:	Pilots	
	B. Detachment "H"	
	Aircraft	
25X1	Pilots	

Section	2	

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#### IDEALIST

#### DEVELOPMENT SUMMARY AND PROGRESS

(1 January 1974 - 31 March 1974)

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### I. AIRFRAME

#### U-2R Flight Test and Operational Training Summary

- 1. IDEALIST Program accomplishments in U-2R aircraft since introduction include 13,045.5 hours on 4,003 sorties as of 31 March 1974.
  - 2. Flight test and operational data are depicted below:

	1 JAN-31 MAR FLIGHTS	1 JAN-31 MAR TIME
1 - 051 2 - 053 3 - 054 4 - 055	49 49 36 43	121.1 117.1 150.7 175.8
TOTAL	177	564.7

25X1

### II. PAYLOAD

A. "H" Camera S/N 003 - The high quality of photographic products to be realized from this camera has been accentuated in official NPIC evaluations of film acquired in both test and mission activity. These evaluations indicate that S/N 003 represents a significant improvement over the old unmodified configuration, and that under optimum conditions, performance can be expected to exceed contract specifications.

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- B. "H" Mirror S/N 002 As of the end of this quarter the new mirror was approximately 2 weeks behind schedule due to difficulties experienced in final polishing. Contract delivery date for this beryllium mirror is 28 April. Subsequent to delivery, the mirror will be installed in "H" camera S/N 002 and flight tested during May or June.
- C. "B-3" S/N 229 and S/N 230 Reinitiated flight testing for the purpose of contract specification verification in late January. However, NPIC data indicating S/N 230's continued failure to achieve performance specifications, when subjected to contractor review indicated that the Article autopilot had not provided a platform stabilized within camera contractually established limits. After Lockheed and Actron's participation in an Autopilot Study, S/N 230 resumed flight testing 19 March. These tests were concluded 27 March, and NPIC evaluation of film products was in progress at the quarter's end. S/N 229 flight testing has been held in abeyance since 5 February; however, testing is tentatively scheduled to resume and be concluded during the fourth quarter.
- D. DELTA Research Camera This configuration underwent acceptance flight testing 9 10 January 1974 and commenced employment in \_\_\_\_\_\_\_15 January. The flight segment of this project, which provided photographic coverage of six selected targets was successfully completed on 10 March 1974.

## III. MAINTENANCE

A. Autopilot Study - Analysis of "B-3" S/N 230 photographic resolution data by NPIC indicated that the camera had not achieved contractually required resolution specifications. Review of the possible causes for this led to the position that the autopilot was not assuring required vehicle stability. This position was confirmed after Article 055 was instrumented, and acquired data for comparison with three previous studies. Subsequent adjustments to the autopilot indicate this system is again performing within required limits; however, a full contractor report is expected early in the fourth quarter, and will guide continued necessary action.

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B. T-35 Tracker Camera - Light Emitting Diode (L.E.D.) components required to fabricate a prototype modification to the T-35 tracker camera are expected to be delivered early in April 1974. This modification will permit time code generator (TCG) time to be exposed on the tracker film and enhance correlation of T-35 frames with threat signals and navigation data. Flight testing of this prototype will commence early in the fourth quarter of FY 1974.

0EV4

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IV. AVIONICS

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V. FY 1975 PLANNING

Pursuant to FY 1975 fiscal guidance, OSA has assisted Director D's staff in constructing a Fiscal Year 1975 Financial Program containing IDEALIST requirements for submission to, and funding by USAF. Funding has been requested in four major categories as follows:

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25X1	A. Pilot Salaries and Benefits B. Operations and Maintenance C. D. Field Service Support	25X1
25X1	VI. AERO MEDICAL AND LIFE SUPPORT ACTIVITIES  A. Medical Activities	25X1
25X1 25X1	2. new Medical Technician at spent several days at Edwards AFB in January 1974 for briefing on emergency procedures for U-2R and rebriefing on medical aid in aircraft accidents.  3. Detachment "G" Flight Surgeon, visited to consult with technicians on	25X1 25X1
25X1	4. AMS/OSA Life Support Officer, has made arrangements with Andrews AFB Altitude Chamber to qualify three personnel who are to work in military aircraft.	25X1

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	B. <u>Life Support Activities</u>	25X1
25X1 25X1	l. New Assignment for Life Support Officer -  was assigned to AMS/OSA  29 January 1974 as new Life Support Officer.  replaced who was reassigned to the Surgeon General's Office 14 January 1974.	25X1
	2. RQ225 Parachute Repack - In an effort to save transportation charges by periodically sending parachutes from Detachment "H" to Detachment "G" for repacking, the Protective Equipment Technician is now repacking the RQ225 personal parachute at Detachment "H" as they become due for repack. The chutes then are returned to the prime contractor, Lockheed Aircraft Corporation, for inspection. At the present time only minor discrepancies have been noted. Further evaluation will be accomplished to insure proficiency in repacking this unique parachute.	
	3. <u>U-2R Survival Kit Rations</u> - A new type mission ration for the U-2R survival kit has been received from Natick Laboratories in Massachusetts to replace the outdated CD-7 which are no longer available. Evaluation of the new ration proved it to be almost as good as the CD-7 and certainly better than anything else in the inventory.	
	4. Automatic Survival Kit - A briefing was given to AMS/OSA on 11 January and 18 March by ARO Corporation Manager of Buffalo Division, Buffalo, New York. The briefing was a status report on the Terrain Activated Deployment System for the survival kit.	25X1
25X1	A price quote of was given to build a protective microwave integrated circuit for present tested breadboard. On 29 January, briefed Col. William Quinn, Chief, Life Support, SPO, Wright Patterson AFB, Ohio, on the TADS to see if the Air Force would be interested in the system. At the present time it is under consideration by the Air Force who have shown great interest.	25X1

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- Shark Deterrent Screen Prototype shark screens from the David Clark Company and the Rocket Jet Engineering Company were evaluated by Dr. C. Scott Johnson, Naval Undersea Warfare Center, San Diego, California, on 12 January 1974. The bags constructed by each company were acceptable, however, the one constructed by David Clark Company was rated superior. At present time we are waiting for a price quote from each company on construction of 60 each.
- Solid Battery Pack for ASR-100A Survival Radio New battery packs have been shipped to field units to replace the pen light batteries which have been very unsatisfactory.
- Prototype Helmet S1010 Protective Assembly At present time the helmet is still undergoing testing and field evaluation.

8. Prototype Polycarbonate Helmet - A pro	totype polyc	arbonate	
helmet was manufactured by Air Lock Incorporat	ed, Milford,		
Connecticut, for testing and evaluation.		2	5X1
AMS/OSA Life Support Officer, as well as		and 2	5X1
of Air Lock Incorporated, con	iducted tests	on	
the helmet at the USAF School of Aviation Medici	ne, Brooks .	AFB,	
Texas. The purpose of these tests was to determ	ine the amo	unt	
of residual carbon dioxide (CO2) in the helmet.	Tests were c	onducted	
at ground level and simulated altitudes of 8,000;	18,000; and	29,000	
feet with no significant changes noted at the vario	us altitudes.	, As	
there was no baseline established for standard pr	essure suit	helmets,	
a similar test was conducted on the S1010 full-pr	essure suit l	nelmet	
with almost identical results.	also conduc	ted 2	5X1
a briefing on the helmet for the U-2 pilots at Dav			
Arizona, and at Edwards AFB, California. The	consensus of	<u>.</u>	
opinions was that the new approach is good and w	ould be well		
received. However, additional modification would	d have to be	made	
before it could be an acceptable flight item.			

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		Section 2 Page 7	25X1
		9. Life Support Conference - A Life Support Conference was	25X1
25X1		held in Washington, D.C., 19 - 20 March 1974. and attended this meeting.	